

**COLORADO RIVER RECOVERY PROGRAM
FY-2006/2007 PROPOSED SCOPE OF WORK for:
O&M Mumma**

Project No.: 29d

Lead Agencies: Colorado Division of Wildlife
Submitted by: Dave Schnoor (Lead) /Tom Nesler
Address: Colorado Division of Wildlife
6655 S. County Rd. 3 South
Alamosa, CO 81101
Phone: (719) 587-3392
Fax: (719) 587-3393
E-mail: dave.schnoor@state.co.us; tom.nesler@state.co.us
Date: June 10, 2005
Revised: November 26, 2001; May 11, 2003, June 17, 2005

<u>Category:</u>	<u>Expected Funding Source:</u>
<input type="checkbox"/> Ongoing Project	<input checked="" type="checkbox"/> Annual Funds
<input checked="" type="checkbox"/> Ongoing-revised project	<input type="checkbox"/> Capital Funds
<input type="checkbox"/> Requested New Start	<input type="checkbox"/> Other(In-kind Services)

I. Title Proposal: Operation and Maintenance of the Mumma Native Aquatic Species Restoration Facility (NASRF).

II. Relationship to 2005 RIPRAP:

General:

IV. Manage genetic integrity and augment or restore populations

IV.C. Operate and maintain facilities.

IV.C.4. Mumma

Green River Action Plan: Yampa and Little Snake Rivers:

IV.A. Yampa River in Dinosaur National Monument

IV.A.1. Augment or restore populations as needed.

IV.A.1.a. Develop State stocking plan for bonytail in the Yampa River

IV.A.1.a.(1) Implement stocking plan.

Colorado River: Mainstem:

IV.A.4. Develop State stocking plan for Colorado pikeminnow in the Colorado River in Colorado.

IV.A.4.b. Implement Colorado pikeminnow State stocking plan.

IV.A.5. Develop State stocking plan for bonytail in the Colorado River from Palisade to Loma.

IV.A.5.b. Implement bonytail State stocking plan.

Colorado River; Gunnison River:

IV.A.2. Develop State stocking plan for Colorado pikeminnow in the Gunnison River.

IV.A.2.b. Implement Colorado pikeminnow State stocking plan.

III. Study Background/Rationale and Hypotheses:

Since 2001, the Mumma Native Aquatic Species Restoration Facility (NASRF), Alamosa, Colorado, in a closed basin, has been put into operation by the Colorado Division of Wildlife, and offered to the Recovery Program as an alternative resource for meeting Colorado River endangered fish production needs. The NASRF offers up to six separate ponds and six large tanks as available for grow-out production purposes. Mumma NASRF has been identified to annually produce approximately 5,400 bonytail and 2,250 Colorado pikeminnow to meet the Recovery program stocking plan (Nesler, et al. 2003).

IV. Study Goals, Objectives, End Products:

Goal: to provide bonytail and Colorado pikeminnow in numbers and sizes sufficient to meet the annual propagation operation plan (Czapla 2003).

Objectives: To receive early life stage progeny of bonytail and Colorado pikeminnow, and grow-out these fish in numbers, sizes, and time frames necessary to meet the annual stocking requirements for these fish species in Colorado rivers.

To transport these fish from Mumma NASRF as necessary, and assist in the stocking of these fish in designated river reaches in Colorado.

End Product:

- Production of Colorado River endangered fish species required to meet revised stocking plan objectives for designated rivers/river reaches in Colorado.
- An annual report providing details of fish received, propagated, transported off station, and maintained on station; mortalities; and propagation and treatment actions required.

V. Study Area:

Mumma Native Aquatic Species Restoration Facility (NASRF), Alamosa, Colorado.

VI. Study Methods/Approach:

The Mumma NASRF has available three 0.3 Acer earthen ponds, four 0.1 acer-lined ponds, two 20' round tanks and six 8' round tanks for propagation of any feasible combination, number and size of the two listed fish species requested by the Recovery Program. The NASRF has formed a partnership with Trinidad State Junior College (TSJC) for use of three 0.3 acer pond and it is expected a student labor force will be employed to assist DOW staff in care and maintenance of the fish populations. Depending on the requirements for maintaining separate family lots and the flexibility of marking polyculturing marked fish from multiple lots and different species (e.g. razorback sucker and bonytail), production capability of the NASRF will vary with annual Recovery Program objectives and expectations. Endangered fish received at the unit as larvae, fry, or fingerling-size fish will be grown using accepted culture techniques and expected annual mortality rates to produce a desired number and size of fish product for Program stocking purposes. These products will be transported to stocking or transfer locations as planned. Assistance will be provided in preparing the fish for release and distribution in target river reaches if requested and budgeted by the Recovery Program.

VII. Task Descriptions and Schedule:

1. Raise bonytail to produce 5,400 to 200 mm total length fish by fall 2006.
2. Raise Colorado pikeminnow to produce 2,250 to 6-inch fish by spring 2006.

VIII. FY 2006 Work:

Deliverables/Due Dates: As requested by recovery plan and as stated above.

1. Raise bonytail to produce 5,400 to 200 mm total length fish by fall 2006.
2. Raise Colorado pikeminnow to produce 2,250 to 6-inch fish by spring 2006.

Budget:

FY-2006 Work

Salaries (½ FTE, Tasks 1 & 2)	28,350
TSJC Lease	26,775
Feed	7,875
Utilities	<u>10,500</u>
Total	73,500

FY 2007 Work:

Deliverables/Due Dates:

Budget:

1. Raise bonytail to produce 5,400 to 200 mm total length fish by fall 2007.
2. Raise Colorado pikeminnow to produce 2,250 to 6-inch fish by spring 2007.

FY-2007 Work

Salaries (½ FTE Tasks 1 & 2)	29,768
TSJC Lease	28,114
Feed	8,269
Utilities	<u>11,025</u>
Total	77,175

IX. Budget Summary:

FY-06	73,500
FY-07	77,175
Total	150,675

X. Reviewers:

Various Colorado Division of Wildlife and Program staff

XI. References:

Czapla, T.E. 2003. Propagation Activities, 2003. Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado.

Nesler, T.P., K. Christopherson, J.M. Hudson, C.W. McAda, F. Pfeifer, and T.E. Czapla. 2003. An integrated stocking plan for razorback sucker, bonytail and Colorado pikeminnow for the Upper Colorado River Endangered Fish Recovery Program, Addendum to State stocking plans. Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado.